IN THE CLAIMS:

Please amend the claims as follows.

1. (Currently Amended) A projection apparatus for imaging a pattern of a mask onto a substrate having a radiation sensitive layer by means of a beam of charged particles, the mask comprising a membrane layer made of a first material, scattering regions forming the pattern and made of a second material scattering the charged particles more than the membrane layer, a plurality of straightly extending supporting struts spaced apart from one another and supporting the membrane layer together with the scattering regions, and at least one mark region, wherein the projection apparatus comprises:

a beam shaping device for producing the beam of charged particles with a predetermined cross-section in a plane in which the mask extends;

a deflector~~positioning device~~ for scanning~~moving~~ the cross-section of the beam of charged particles in the plane in which the mask extends along a predetermined path over the mask parallel to the direction into which the struts extend; and

a sensor for ~~supplying a measuring signal which is dependent on~~detecting, concurrently with the scanning of the beam of charged particles along the predetermined path, a number of charged particles impinging on the at least one mark region provided on the mask; wherein

the deflector is responsive to a measuring signal dependent on the number of charged particles detected by the sensor in order to reduce deviations from the predetermined path.

2. (Canceled)

3. (Previously Presented) The projection apparatus according to claim 1, wherein the cross-section of the beam of charged particles has a width transverse to the direction into which the struts extend, wherein the width corresponds substantially to an inside width between adjacent struts.

4. (Previously Presented) The projection apparatus according to claim 1, wherein the beam shaping device further produces at least one auxiliary positioning beam to interact with the at least one mark region provided on the mask, wherein a cross-section of the at least one auxiliary beam is positioned in the plane in which the mask extends at a predetermined constant distance relative to the cross-section of the beam of charged particles.

5. (Previously Presented) The projection apparatus according to claim 4, wherein the cross-section of the auxiliary positioning beam continuously tapers into a direction transverse to a direction into which the predetermined path of the cross-section of the beam of charged particles extends.

6. (Previously Presented) The projection apparatus according to claim 4, wherein the beam shaping device produces a first auxiliary positioning beam and a second auxiliary positioning beam, wherein the cross-section of the first auxiliary positioning beam is spaced apart from the cross-section of the second auxiliary positioning beam in the plane in which the mask extends transverse to the direction into which the struts extend by an inside distance which is larger than an inside width between adjacent struts.

7. (Currently Amended) The projection apparatus according to claim 1~~any one of claims 1 to 6~~, wherein the deflector~~positioning device~~ is configured to control the predetermined path of the cross-section of the beam of charged particles such that the number of charged particles impinging on the at least one mark region is minimized.

8. (Currently Amended) The projection apparatus according to claim 1~~any one of claims 1 to 6~~, wherein the deflector~~positioning device~~ is configured to control the predetermined

path of the cross-section of the beam of charged particles such that the number of charged particles impinging on the at least one mark region corresponds to a predetermined value.

9. (Currently Amended) The projection apparatus according to claim 1, wherein the deflector~~positioning device~~ is responsive to the measuring signal to stop a movement of the cross-section of the beam of charged particles along the predetermined path.

10 – 26. (Canceled)

27. (Currently Amended) The projection apparatus according to claim 1[[2]], wherein the ~~projection beam~~ cross-section of the beam of charged particles has a width transverse to the direction into which the struts extend, which corresponds substantially to the inside width between adjacent struts.

28. (Currently Amended) The projection apparatus according to claim 1[[2]], wherein the beam shaping device furthermore produces at least one auxiliary positioning beam to interact with the mark region provided on the mask, wherein a cross-section of the auxiliary beam is positioned in the mask plane at a predetermined constant distance relative to the ~~projection beam~~ cross-section of the beam of charged particles.

29. (Currently Amended) The projection apparatus according to claim 3, wherein the beam shaping device furthermore produces at least one auxiliary positioning beam to interact with the mark region provided on the mask, wherein a cross-section of the auxiliary beam is positioned in the mask plane at a predetermined constant distance relative to the ~~projection beam~~ cross-section of the beam of charged particles.

30. (Original) The projection apparatus according to claim 5, wherein the beam shaping device produces two auxiliary positioning beams, whose auxiliary beam cross-sections are spaced apart from one another in the mask plane transverse to the direction into which the struts extend by an inside distance which is larger than the inside width between adjacent struts.

31 – 37. (Canceled)

38. (Previously Presented) The projection apparatus according to claim 1, wherein the sensor comprises at least one of an Auger electron detector, a backscattering electron detector, an X-ray detector, and a fluorescence radiation detector.

39. (New) A method for exposing a radiation sensitive layer, the method comprising:

generating a shaped beam of charged particles having a predetermined cross-section in a plane of a mask providing a pattern to be imaged onto a radiation sensitive layer using the beam of charged particles;

scanning the beam of charged particles across the mask along a predetermined path;

detecting radiation generated by charged particles incident on at least one mark region provided on the mask, wherein the detecting of the radiation is performed concurrently with the scanning of the beam of charged particles; and

controlling the scanning of the beam of charged particles based on the detected radiation.

40. (New) The method according to claim 39, wherein the at least one mark region is an elongated mask region extending parallel to a supporting strut of the mask.

41. (New) The method according to claim 39, wherein the scanning of the beam of charged particles is controlled such that a deviation between a line along which the cross-section of the beam of charged particles is scanned in the plane of the mask and a predetermined line is minimised.

42. (New) The method according to claim 39, wherein the controlling of the scanning of the beam of charged particles comprises stopping the scanning along a predetermined line based on the detected radiation.